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## PATENT ABSTRACTS OF JAPAN

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YAMAZAKI TATSUYA

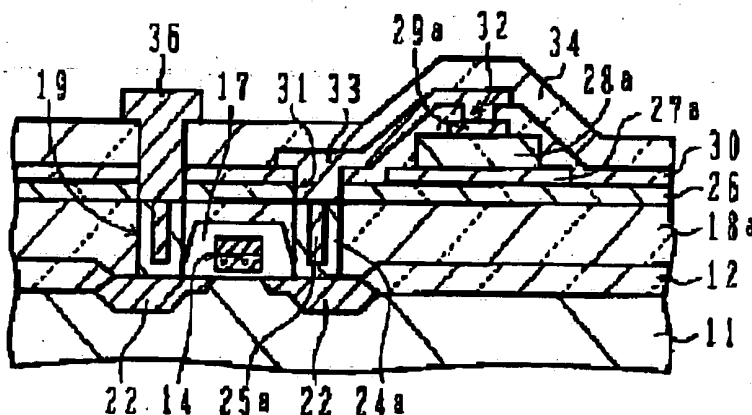
(74) Representative:

(54) SEMICONDUCTOR  
DEVICE AND ITS  
MANUFACTURE

(57) Abstract:

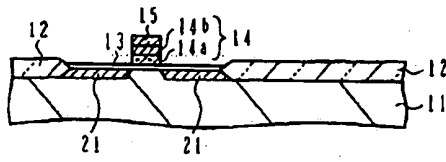
**PROBLEM TO BE SOLVED:** To obtain high dielectric characteristics, by using metal plugs and forming a capacitor containing an oxide dielectric film having perovskite crystal structure.

**SOLUTION:** An aperture 31 which penetrates oxide 30 and an oxygen shield insulating film 26 and reaches a metal plug, and an aperture which penetrates the oxide 30 and exposes an upper electrode 29a is formed. A TiN layer is deposited on the whole surface and patterned, and a local wiring 33 connecting the metal plug and the upper electrode 29a of a capacitor is formed. An oxide film 34 is formed on the whole surface of a substrate so as to cover the local wiring 33. An aperture which penetrates the oxide film 34 and an insulating film below it and reaches the other metal plug is formed, and a wiring 36 of Al or the like is formed. If necessary, processes for forming an insulating layer, an upper wiring, etc. are performed. Thus, a semiconductor device having a capacitor containing a perovskite dielectric film is formed. Thereby high dielectric characteristics can be obtained.

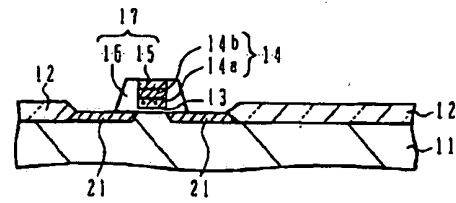


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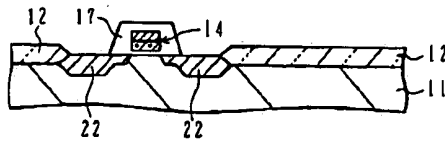
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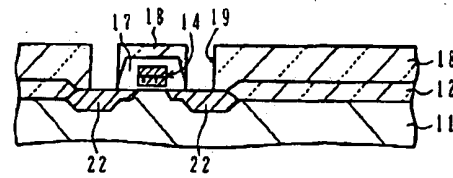
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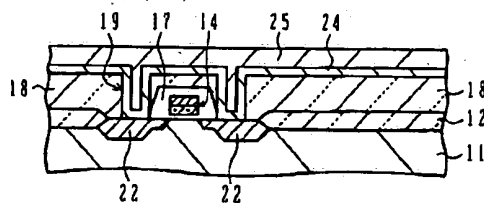
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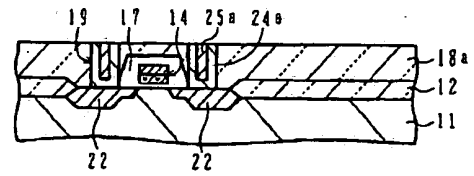
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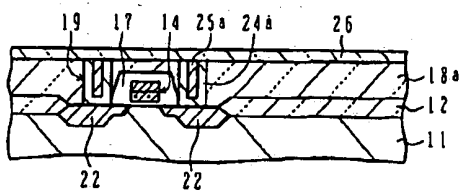
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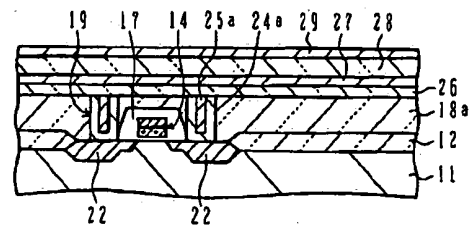
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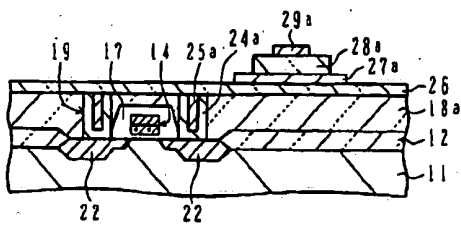
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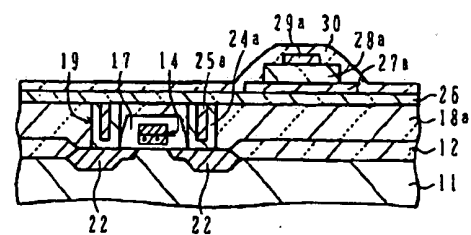
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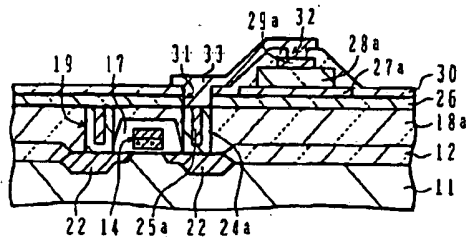
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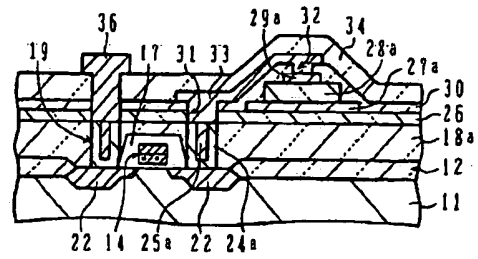
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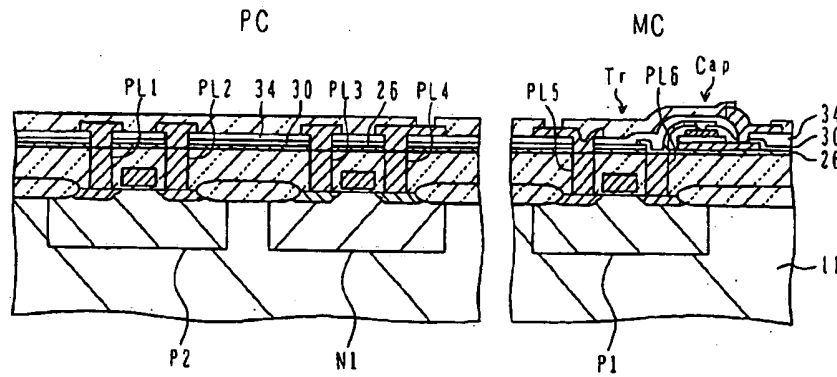
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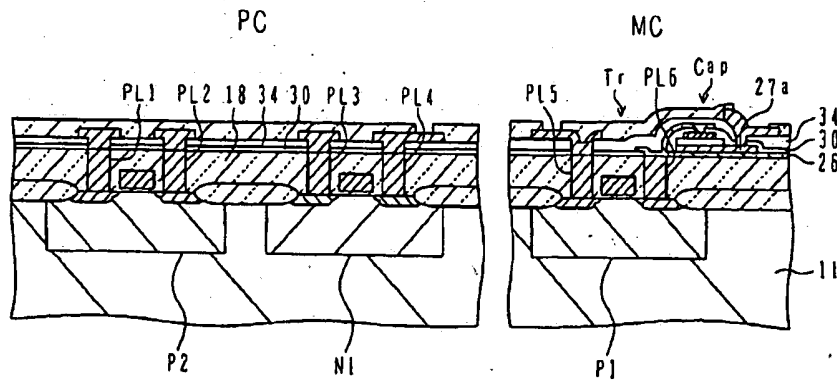
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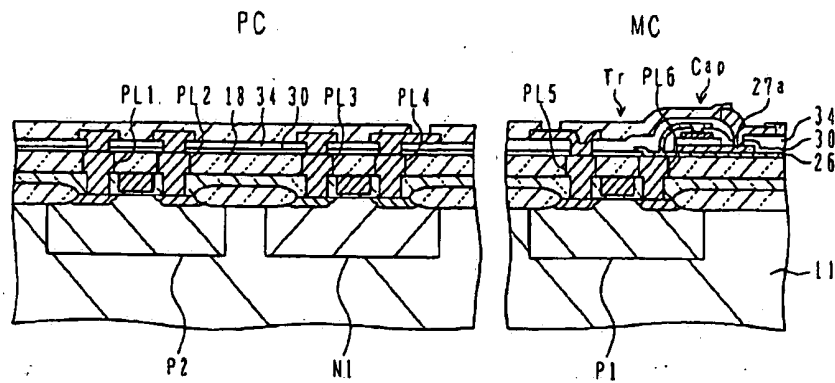
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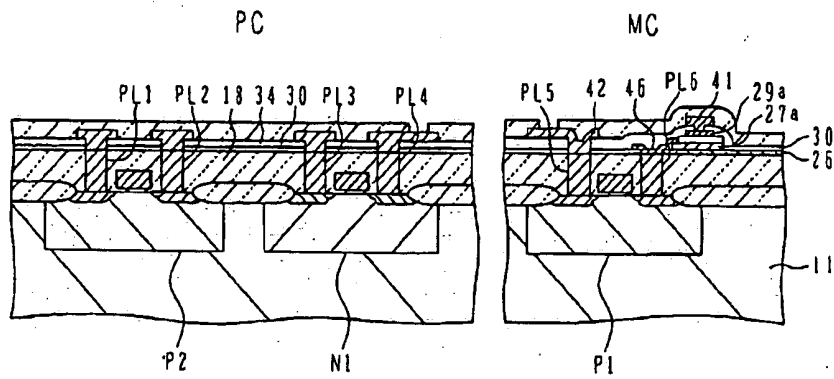
【図16】



【図17】



【図18】



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H01L 29/792

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